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Process for reducing the level of harmful substances in tobacco leaves

The present invention relates to a process for reducing the level of harmful substances in tobacco leaves.

It is an object of the present invention to make it possible to prepare tobacco leaves that can be used for the manufacture of cigars, cigarettes and the like that are not harmful to smokers.

This object is achieved by means of a process comprising the following steps:

- steeping the said leaves in a water bath at a temperature of between 13°C and 25°C for between 4 and 12 hours,
- cooling the said leaves to a temperature not higher than -35°C, and
- gradually heating the said leaves at an average rate of not more than 2.0°C/h up to a temperature of at least 35°C.

After being treated in this way the tobacco leaves can be processed by conventional methods to produce cigarettes, cigars and similar smoking products that do not cause irritation to the throat or lungs of smokers or contaminate the surrounding environment. In fact, it has been found that smokers have a sense of freedom in the oral and pulmonary tracks, and a lowered sense of addiction.

The leaves are preferably steeped in a water bath at a temperature of between 14°C and 16°C for between 6 and 10 hours, and are then cooled to a temperature of between -35°C and -40°C and heated at an average rate of between 1.5 and

1.8°C/h to a temperature of at least 40°C.

Other advantages and features of the present invention will be apparent from the following illustrative embodiment.

#### EXAMPLE

100 g of green tobacco leaves are steeped overnight in a water bath at room temperature. The leaves are then taken out of the water bath and cooled to a temperature of -40°C. The leaves are then heated to a temperature of 40°C at an average rate of heating of approximately 1.8°C/min.

Table 1 below shows in detail the temperature at which the leaves are kept against time.

TABLE 1

Time (h)	Temperature (°C)
1	10
4	-40
9	-25
24	0
26	10
28	20
33	30
48	40

Following this treatment, a substantial reduction is found in the level of harmful substances that were originally present in the tobacco leaves.

Naturally, without departing from the principle of the inven-

tion, the details of implementation and forms of embodiment may be varied considerably from the details given above purely by way of example, without thereby departing from its scope.